

## CLAIMS

I claim:

1. A replacement selection method for organizing data items from two or more input streams comprising the steps of:
- identifying a data item being processed from one of the input streams as being a duplicate of a previously processed data item ;
  - retaining an indication that the data item being processed is a duplicate data item ; and
  - organizing the data items responsive at least in part to the indication that the data item being processed is a duplicate data item.
2. The method of claim 1, wherein the indication that the data item being processed is a duplicate data item is one value of an indicator having values corresponding to "empty", "duplicate", "merging" and "done".
3. The method of claim 2, wherein:
- the indicator is an integer variable;
  - the indicator value corresponding to "empty" is the value zero;
  - the indicator value corresponding to "duplicate" is the value one;
  - the indicator value corresponding to "merging" is the value two; and
  - the indicator value corresponding to "done" is the value three.
4. The method of claim 3, wherein the step of organizing is responsive to comparisons between the values of the integer variable indicator values associated with data items being compared.
5. The method of claim 1, wherein the method is a replacement selection method using a loser-oriented selection tree.

6. A computer-readable data structure representing a selection tree for use in a computer-implemented replacement selection method of organizing data items from two or more input streams, comprising
- for each node of the selection tree:
    - an identifier of one of the input streams,
    - a reference to a data item being processed from that one of the input streams; and
    - an indication whether the data item being processed is a duplicate.
7. The data structure of claim 6, wherein the indication that the data item being processed is a duplicate is one value of an indicator having values corresponding to "empty", "duplicate", "merging" and "done".
8. The data structure of claim 7, wherein:
- the indicator is an integer variable;
  - the indicator value corresponding to "empty" is the value zero,
  - the indicator value corresponding to "duplicate" is the value one;
  - the indicator value corresponding to "merging" is the value two; and
  - the indicator value corresponding to "done" is the value three.
9. An article for use in a computer implemented replacement selection method for organizing data items from two or more input streams comprising:
- a computer-readable signal-bearing medium;
  - means in the medium for identifying a data item being processed from one of the input streams as being a duplicate of a previously processed data item ;
  - means in the medium for retaining an indication that the data item being processed is a duplicate data item ; and
  - means in the medium for organizing the data items responsive at least in part to the indication that the data item being processed is a duplicate data item.

- The article of claim 9, where  
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 "duplicate", "merging" and "done".
- The article of claim 10, where  
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- The article of claim 11, where  
 between the values of the integer va  
 compared.
- The article of claim 9, where  
 r-oriented selection tree.
- The article of claim 9, where  
 rdable data storage medium; an